Det Bel Isle & Windsor Ferry Co 67

VOL. IX NO. 10. CLEVELAND, O., MARCH 10, 1887. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND.

The steamer Raleigh is still in the Cleveland Drydock Co.'s dock.

Freights still continue strong, and the prospects for a rise are good.

Thomas Axworthy has been spending a few days in Milwaukee this week.

Mr. John Winchel, of Huron, Ohio, part owner of the St. Paul, is in the city this week.

Mr. R. Willard, the veteran ship painter, on Main street, is doing an elegant job on the steel steamship Cambria.

Mr. Vance, of Bay City, has purchased from the Bradley estate the schooner J. F. Card, the consideration being $6,000.

Messrs. Kerr, Stang & Gilmore, of Lorain, Ohio, have been awarded the contract for repairing and extending the piers at Fairport harbor, the price being $14,601.17.

The steamer Keystone and consort J. G. Masten will be added to the Cleveland fleet of vessels, Mr. Thomas Axworthy having purchased them during his recent visit to Milwaukee.

the Bentley, Skidmore, and Three Bells.

Captain John McKerchy, mate of the steamer St. Paul, has arrived here to fit out this favorite boat. Captain James Owens will have command of her this season.

Mr. F. H. Pauley, of Milwaukee, is spending a few days in this city. It is possible that Mr. Pauley is adopting the fashion that prevails now and is looking for vessel property, as he has lost during the last two years

The steamer Samuel Mather, at Quayle's yard, is fast approaching completion and will be launched in a short time. Her place on the stocks will be immediately taken by another steamer already contracted for. It is evident that Quayle's Sons will be busy the entire summer.

The life saving crew at this port during next season will be composed of the following named gentlemen: Captain C. C. Goodwin, keeper; Lawrence Distel, Samuel Hill, Patrick Carlin, one of the crew of the revenue cutter Perry; J. Hourrian, Wm. Buchanan and George Buchanan. The two last named were members of Sandy creek, Texas, station, which was burned last year.

Captain Robert Kerr, of the schooner Delaware, visited Cheboygan, Mich., last week, he having learned that some queer proceedings had been going on with the coal cargo of his schooner, laid up at that port. He found on his arrival there that the shipkeeper, Louis Merques, had broached the cargo and sold about sixty tons of coal. Sheriff Pacquette arrested the man, and he will be brought to trial on the 12th of April.

Mr. C. E. Williams, of Buffalo, having failed to provide a bond for the building of the east arm of the Cleveland breakwater, according to his bid of last fall, the contract for the work has now been let to Messrs. L. P. & J. A. Smith, of this city. They are vigorously taking hold of the work, and intend to have a large share—not all of the 1,150 feet which they have contracted to build—completed this season. They will probably be able to begin the construction of cribs about the middle of this month. About one-half of the stone foundation of the new structure is already in.

We direct the attention of vessel owners and captains to the fact that Spiegle Bros. have completed the remodeling of their stores Nos. 30 to 32 River street. Those who were so kind as to give them their trade last year and noted their motto, which was to do an "upright, straightforward business with everyone," will approve of their good work and give them their earliest visit and take notice of their great improvements over last year. They make it one great point in business to try and please everyone, to put their goods away down, so as to live and let others live, and, to give you the best that the market affords. Their stock is strictly fresh and complete, and in addition they will also state that they have taken one side of their stores for a first class meat market, employing one of the best butchers in the city, with instructions to sell as low as anyone. They thank everyone for their kind patronage in the past, and ask a continuance of the same.

The Detroit & Cleveland Navigation Co. intend opening the season on the 15th inst., at which time their first boat, the City of Cleveland, will arrive in Cleveland from Detroit. The company will run the City of Mackinac alternately with the City of Cleveland until about the middle of April. The City of Detroit is receiving extensive repairs at the Detroit Drydock Co.' docks.

Horace Elmer, light house inspector, has notified B. L. Pennington, secretary of the Cleveland vessel owners' association, that he has, at the suggestion of the association, recommended to the department the establishment of a light and fog signal on Squaw island. The following letter was received by Mr. Pennington:

WASHINGTON, D. C., March 4.

SIR: Your letter of the 24th of February, '87, to the inspector of the 11th lighthouse district, informing him of the action of the Cleveland vessel owners' association regarding the establishment of a light on Squaw island, Lake Michigan, has been forwarded to this office.

In reply I have to inform you that the board, in its annual estimates, which were laid before congress at its session just closed, included an item of $25,000, for the establishment of a light station at Squaw island, Michigan. HENRY V. PICKING,
Commander, U. S. N., Naval Secretary.

About twenty representatives of Cleveland lumber dealers left here last night for Buffalo in a special car. They go to attend the meeting of lumbermen from the lake cities and the east. From the following in the Buffalo Courier it appears that the visitors are to be well treated: "The lumbermen from the lake cities and from Albany and New York who will come to Buffalo on Tuesday to attend the convention to be held here are to be made thoroughly familiar with the important and increasing facilities of this city for receiving and shipping lumber, and the preparations which are being made for their reception and entertainment will also be apt to send them home with very exalted ideas of the Queen City and the proverbially generous character of the hospitality always extended to people from abroad. The visitors will be the guests of the Buffalo lumber exchange, and they will be entertained in handsome style. On Thursday morning, through the courtesy of the Lehigh Valley road, as extended by General Agent P. C. Doyle, they will have an engine and car placed at their disposal for an inspection of the lumber district at the Tifft farm and along the line of the Buffalo Creek road. A visit will be made to the Buffalo library building, and, if the weather is favorable, the programme will include a carriage ride to various points of interest. The convention will be held at the Merchants' Exchange in the afternoon."

Meteorological summary for the week ending March 9:

Mean barometer	30.181
Mean temperature	37.3
Mean humidity	75.5
Total precipitation, inch	1.41
Prevailing direction of wind	N.E.
Total wind move	1679
Av. clouds	4.8
Av. state of weather	Fair.
Max. temperature, highest	56.6
Min temperature, lowest	21.6

WILLIAM LINE, Sgt. Signal Corps, U. S. A.

SARNIA.

The Sarnia Canadian says Captain Zealand will not sail the Ontario this season. He has engaged to command the Dean Richmond, a large propeller engaged in the Grand Trunk Railway's grain carrying trade between Duluth and Fort Gratiot. In consequence of this charge Captain Zealand will change his place of residence to Port Huron before the opening of navigation.

Leading lumbermen expect that last year's prices will be sustained. Senator Durant has sold his logs cut at last year's prices. The increased consumption will offset the over production.

BUFFALO.

Special to the Marine Record.

Robert Mills & Co., and the Union Drydock Co. raised the wages of their skilled workmen 10 per cent on the 1st of March.

Robert Mills & Co.'s new steamship is being completed as fast as possible, as is also the work on the steamships Commodore and Oregon, in their docks. Peter Sherer, one of their workmen, who fell off the rail of the Oregon into the dock last week, is doing well in the hospital.

There is great demand for dock room for vessels laid up here, and several more drydocks would soon be filled if they were obtainable.

It is reported that the steambarge V. H. Ketchum has been sold to Messrs. Pickands and Mather, of Cleveland, for $86,500. Captain Mallory will have command of her, as heretofore. The Ketchum will go out of drydock this week. The repairs she has received have greatly improved her appearance. The steamship H. J. Jewett will take her place in the dock for a new shoe and rudder.

Captain M. J. Galvin has purchased one-third of the schooner Uranus from Captain Dennis Galligan; consideration, $5,000.

Captain W. Fletcher, who has been in the Sisters' hospital for three weeks, suffering from a painful internal trouble, is, we are pleased to say, around again. He says he received excellent treatment from the medical staff and nurses, and speaks in great praise of their kindness.

Captain John Bourkland, of Buffalo, who has sailed the schooner Emma L. Coyne for the last six years, will command the fine schooner David Vance, recently purchased by William Livingston, of Detroit.

W. W. Tyler, A. McDougal, and M. J. Galvin have purchased the passenger propeller Saginaw Valley; consideration, $30,000.

M. J. Patrick, 65 Canal street, will have a large amount of ship supplies ready for his customers before navigation opens.

The marine engineers held another meeting Thursday evening, which was well attended by the association and outside men. Numerous additional signatures had been added on the petition to the line managers, asking for an increase in salary the coming season. Before 1881 chief engineers were getting $120 per month and second engineers $75; that year wages were reduced to $100 and $60 respectively, with the understanding, it is claimed, that the old schedule would be restored when business warranted it. Last season was profitable to vessel owners, and the ensuing season promises to be still more so; therefore the engineers argue that it is but proper that they should again be paid $125 and $75. The men hold that the position of engineer on a boat is of as much importance as that of master, and that the latter has always received much better pay in proportion than the former. Copies of the petition were to be presented to the line managers by Monday, so that they could consider the matter at a conference to be held soon after.

According to report the rates on ore are keeping up well in spite of some slackness at Cleveland a week or so ago. It is learned that several thousand tons were taken here at $1.45 sharp from Escanaba to Ohio ports. Part of it, however, is to come here and pay 10 cents extra.

The lease of the Wabash line of propellers to the Union line has been completed and is announced by authority. There will, however, be no change of captains. Captain Root will sail the Russell Sage, Captain Cottrell the A. L. Hopkins, and Captain Wetmore the John C. Gault.

The propeller Northerner, sunk at Kelley's Island, has been pumped out, but is still on the bottom, as she sank in 13 feet of water. Her cargo of lime is being taken out, and when that is done she will float. As soon as navigation opens she will be rebuilt. Captain Thos. Maytham, who has been superintending the work, has returned home.

The barge F. B. Gardner, with lumber at Cheboygan for Buffalo, taken last fall, will complete her voyage in the spring in tow of the Pacific. The Gardner and the Banner are to tow with the Pacific next season. They have no lumber charters, but will not go to Bay City. The Pacific will be sailed by Captain Charles Wilson, the Gardner by Captain D. Mahoney, who sailed the Winona last year, and Captain James Allen is reappointed to the Banner. Captain Thomas Riordan, last mate of the Nebraska, will sail the George C. Finney, also of the Conley fleet

There is considerable interest taken by owners of small vessels in the prospective improvement of the grain trade on Lake Erie in consequence of the retirement of the Wabash line. The Finney may not, therefore, go farther abroad than Detroit this season.

Mr. F. W. Baldwin, of Ogdensburg, superintendent of the Central Vermont steamboat line, was in Buffalo last week, looking after his elevator steam shovel contract. He reports that the newly reorganized line will run on time between Chicago and Ogdensburg, though the exact time has not been fixed. It is thought that the time will be from 16 to 19 days for the round trip. They will stop only at Cleveland and Milwaukee on the way. If a depth of 14 feet is secured in the Welland canal, as promised, it is thought that no lightering will be necessary.

The annual meeting of the Lake Carriers' Association will occur next Wednesday at 10.30 o'clock in the committee rooms of the Merchants' Exchange. A new board of managers will be elected and other important business will be transacted. All vessel owners, whether members or not, are invited to attend.

The annual election of the Seamens' Union was held Wednesday afternoon and resulted as follows: President, William Thomas; first vice president, Alex Stuart; second vice president, George Richardson; secretary, William Salsman. WILLIAMS.

PORT HURON.

Special to the Marine Record.

Captain Cummings Geel has been in Chicago looking over some boats. He contemplates buying a steambarge.

Port Huron parties are after another tug to put on the river with the O. W. Cheney to look after the wants of vessel men at this port.

Love & Scofield are building two fine boilers, one for the ferry Clara, of St. Clair, and the other for the tug A. Andrews, of Toledo.

St. Clair river is clear of ice as far down as Idlewild Park. The Mary will begin to make regular trips as soon as the river opens to Marine City.

Captain John Colton, for many years a sailor, bought a hotel at Brockway, Mich., and went into the hotel business for two years. He kept the hotel, but has leased it and will move his family to Port Huron and go sailing again. No hotel keeping for him. Captain Colton will tell the boys of the hardships a hotel proprietor has to go through to keep the sheriff from his door.

The Phœnix Iron Works here closed a contract with Hazen & English to build a boiler 8½ by 14 feet and will use 9-16 steel for the steambarge Sawyer. J.

OSWEGO.

The Willie Keller is discharging the cargo of barley held through the winter.

Captain William Williams, who has been engaged in inspecting vessels between Tonawanda and Ogdensburg, has completed his labors and returned home.

CHEBOYGAN.

Fishermen report the ice about nine inches thick opposite this harbor, and much thinner in mid-channel. There is considerable water upon it, weighing it down. An early opening of the Straits is predicted by all.

AMENDED STEAMBOAT RULES AND REGULATIONS.*

At the regular annual meeting of the board of supervising inspectors of steam vessels, held in Washington, D. C., January and February, 1887, amendments were made to Rule I, Sec. 3; Rule II. Secs. 9 and 34; Rule III, Sec. 13; Rule V, Secs. 5, 18, and 24; Rule IX, Secs. 2 and 14, (new,) which were approved by the secretary of the treasury February 8, and have now the force of law, as provided in Sec. 4.405. Revised Statutes.

An additional amendment to Rule II, Sec. 9, also amendments relating to qualifications of masters and mates of steam vessels; new regulations for excursion steamers; requiring test-pieces from each plate of iron or steel used in the construction of boilers; and rule requiring stop valves attached between all boilers and steam pipes; also that portion of amendment to Rule II. Sec. 9, requiring lap-welded flues to be made in three feet lengths, etc., failed to receive the approval of the secretary of the treasury, and are, therefore, void and of no effect.

Several new devices were approved by the board, which have also received the approval of the secretary of the treasury, as required by Sec. 4,491, Revised Statutes:

The boilers presented for approval by the Huber manufacturing company, Marion, Ohio; J. W. Walters, New York (presented by F. C. Brecht, navy department, Washington, D. C.;) and Francis O. Burrows, Cleveland, Ohio, were decided by the board not to require its approval. They being constructed of riveted iron and steel plates, their use is permissible without such approval, subject to the discretion of the local inspectors only as to amount of steam *et cetera.*

In reference to several "feed water heaters" presented for approval, the board decided that such devices did not require its approval; therefore no action was deemed necessary—in substance, leaving it to the discretion of local inspectors to decide in the case of each boiler inspected to determine that "the arrangement for delivering the feed water is such that the boilers cannot be injured thereby," and that the temperature is in conformity to the provisions of Sec. 12, Rule II.

Following is the full text of the various sections of rules as amended, the parts that have been stricken out enclosed in brackets [thus,] while the amendments, as approved, are printed in "quotation marks."

J. A. DUMONT, Supervising Ins.-Gen.

Approved, DANIEL MANNING, Secretary of the Treasury.

Rule I.—Sec. 3. To ascertain the tensile strength of plates, a piece shall be taken from each sheet to be tested, the area of which shall equal one quarter of one square inch on all plate 5-16 inch thick and under; and all plate [over] 5-16 inch thick and "under ¾ inch thick" the area shall equal three quarters [the square] of its thickness and all plate over ¾ inch thick, the area shall equal one-half of its thickness;" and the force at which the piece can be parted in the direction of the fiber or grain, represented in pounds avoirdupois—the former multiplied by four, the latter in proportion to the ratio of its area—shall be deemed the tensile strength per square inch of the plate from which the sample was taken; and should the tensile strength ascertained by the test equal that marked on the plates from which the test-pieces were taken the plates must be allowed to be used in the construction of marine boilers: "Provided always," That the plates possess homogeneousness, toughness, and ability to withstand the effect of repeated heating and cooling; but should these tests prove the plates to be overstamped, the lots from which the test plates were taken must be rejected as failing to have the strength stamped thereon. But nothing herein shall be so construed as to prevent the manufacturers from restamping such plates at the lowest tensile strength indicated by the samples, provided such restamping is done previous to the use of the plates in the manufacture of marine boilers.

Rule II—Sec. 9, (New paragraph at end,) "Provided, however, That all lap-welded flues, 16 inches diameter, and not less than 7 inches diameter when used under a steam pressure of 120, pounds and upward, shall be of the same thickness as prescribed in table, Rule 2, section 8, for riveted flues."

Sec. 34. (New paragraph at end.) "This section to apply to all steamers hereafter built," (February 8, 1887.)

Rule III.—Sec. 13. A portion of the life boats required on [lake, bay, sound, and ocean] "all passenger" steamers may be substituted by their equivalents in "approved" life rafts when, in the judgment of the inspectors, it can be done with safety.

Rule V.—Sec. 5. [No original license shall be issued to any person to act as engineer, except for special license on small pleasure steameas, who cannot read and write, or who has not served at least three years in the engineer's department of a steam vessel, or as a regular machinest in a machine works, provided that any person who has served for a period of three years as a locomotive or stationary engineer may be licensed to act as engineer on steam vessels after having had not less than one year's experience in the engineer's department of a steam vessel.]

"No person shall receive an original license as engineer, or assistant engineer, except for special license on small pleasure steamers, who has not served at least three years in the engineer's department of a steam vessel: Provided, That any person who has served for a period of three years as a locomotive or a stationary engineer, or as a regular machinist in a steam engine works at least three years, may be licensed to serve as engineer on steam vessels after having had not less than one year's experience in the engine department of a steam vessel of twenty tons or upward (which fact must be verified by the certificate in writing of the licensed engineer or master under whom the applicant has served,) and no person shall receive license as above, except for special, license, who is not able to determine the weight necessary to be placed on the lever of a safety valve (the diameter of valve, length of lever, and fulcrum being known) to withstand any given pressure of steam in a boiler. Or who is not able to figure and determine the strain brought on the braces of a boiler with a given pressure of steam, the position and distance apart of braces being known, and no engineer or assistant engineer now holding a license shall have the grade of the same raised without possessing the above qualifications."

Sec. 18. [The grade of an engineer or pilot shall not be raised during the time for which his license was granted, by any other than the inspectors who granted the same.]

"Except by the consent in writing, of the board that granted the license, no other board shall raise the grade of an engineer or pilot during the year for which the license was granted."

Sec. 24. (New paragraph at end.) "Masters and pilots of steamers on lakes and seaboard are required to have their wheel chains rove so that the wheel and helm shall move in the same direction, so that when the wheel is put to starboard the vessel's head shall go to port, and when the wheel is put to port the vessel's head shall go to starboard."

Rule IX.—Sec. 2. It shall be the duty of the inspectors, jointly, before granting a certificate of inspection, to thoroughly test the fire apparatus of steamers, and to examine carefully all pumps, hose, life boats, and other equipments required by law, "and to see that the" [glass globes of] "colored signal light are in no case less than six inches diameter and six inches high."

"Sec. 14. (New.) When it is known, or comes to the knowledge of the local inspectors, that any steam vessel is or has been carrying an excess of steam beyond that which is allowed by her certificate of inspection, it is recommended that the local inspectors in whose district said steamer is being navigated, in addition to reporting the fact to the U. S. District Attorney for prosecution under Sec. 4 437, Revised Statutes, shall require the owner or owners of said steamer to place on the boiler of said steamer a lock up safety valve that will prevent the carrying of an excess of steam, and shall be under the control of said local inspectors.

"On the placing of a lock up safety valve upon any boiler, it shall be the duty of the engineer in charge of same to blow, or cause the said valve to blow off steam at least once in each watch of six hours, or less, to determine whether the valve is in working order, and it shall be his duty to report to the local inspectors any failure of such valve to operate."

"In case no such report is made, and a safety valve is found that has been tampered with, or out of order, the license of the engineer having such boiler in charge shall be revoked."

"It shall be the duty of the local inspectors to to send a copy of this rule to every steamer in their district when said copies are furnished by department."

*The amendments are inclosed in quotation marks.

The Providence steam windlasses, made by the American Ship Windlass Co., of Providence, R. I., have a solid center bearing to prevent the shaft from springing. This prevents all clattering of the worm and worm gear under heavy strain, which would cause them to wear rapidly. This company have found by experience that a center bearing is necessary even in a hand windlass, but in a steam windlass, where there is ten times as much strain, it is doubly important.

HISTORY OF LAKE NAVIGATION.

Written for the Marine Record.

CHAPTER LXXXIX.

The great Chicago fire in which several vessels and much shipping and dock property were destroyed, together with elevators, etc., will long be remembered on the lakes. The fire broke about 11 o'clock on the 8th of October and raged without abatement until the entire business portion of the city was laid in ruins. From Harrison street south to Division street north, and from the river to the lake, and four miles long by one wide, the flames swept everything before them, beside burning away into the outskirts of the city, rendering homeless 100,000 people and destroying $300,000,000 worth of property. About 2,500,000 bushels of grain in elevators was destroyed. The vessels burned were the propeller Navaino, owned by the Goodrich Transportation Co.; schooner Glenbula, owned by Magill and others; schooner Eclipse; barkentine Fontanella, owned by Becker, J. D. Bothwell and others; schooner Butcher Boy, owned by John Murray and others, partially burned, the Canadian bark Valetta, owned by Captain Larken, and the schooner Alnwick.

This great fire and others about the same date which ravaged the lake region, caused a dense smoke to overhang the lakes for a number of weeks, making navigation extremely hazardous, many vessels going ashore.

The schooner Seneca Chief, 150 tons, was burned to the water's edge while a fire was raging at Manistee a few days after the Chicago fire. She was built at Buffalo in 1846 by F. N. Jones.

The bark Major Anderson went ashore on the 12th of October and proved a total wreck. The Anderson was owned by Captain John Prindiville, of Chicago, who suffered great loss by the fire in that city. The Anderson for several years belonged to the Winslow line and came out in 1861. She was 568 tons burden.

The schooner Levant was wrecked off Sheboygan during a gale on the night of October 14. She was discovered by the D. P. Dobbins, whose captain manned and sent a yawl to the unfortunate vessel. Two of the crew only were found alive. One named Peter Brande, of Chicago, lived but a few minutes after being rescued. The other, named Peter Sarnum, also of Chicago, was the only survivor. The balance of the crew were found dead in the rigging, the master, mate, three seamen and a passenger named Robert Brown,

The schooner La Petite, Captain O. B. Smith, of Huron, Ohio, was overtaken by a gale on Lake Huron on the 16th. She was bound from Alpena to Huron with a cargo of lumber. The storm drove her from her course and the seas swept her entire deck load overboard, after which she sprung aleak and capsized. The crew clung to the wreck until found by the schooner E. P. Dorr, Captain Barnes, in an exhausted and famished condition. Captain Barnes cared for the sufferers and landed them at Au Sable.

During the same gale the tug Dispatch with the barges Shiawassee, Sheldon, Twilight, Paragon and Table Rock, all lumber laden, for Ohio ports, went ashore on the reef at Port Austin. They were released and taken to Detroit for repairs.

The schooner Plover, of Cleveland, which left Duluth on the 7th of October, with 18,000 bushels of wheat, when abreast of Whitefish Point, struck and sunk immediately. Captain Jones and crew of eight men escaped in a small boat and were picked up by the steamer Keweenaw.

The brig Mechanic, Captain Henry McKee, bound for Chicago, coal laden, was struck by a squall and foundered with all hands, on Lake Michigan. The names of the crew, eight persons, were not known. The Mechanic was owned by Bliss, Burch & Bruce, of Racine, and valued at $14,000.

The schooner Olivia, Captain Bradbeer, from Mill Point to Oswego, capsized on Lake Ontario on the 18th, and a boy named John Dewey, who was in his bunk, drowned. The crew hung to the sides of the schooner until they got the small boat loose when they all got in and drifted ashore seven miles down the lake. The schooner sunk.

On the 20th of October the schooner R. P. Mason, while being towed to Little Traverse by the tug Leviathan, capsized and five lives were lost. The sea was so rough that the tug cut her loose, after which she immediately capsized, and drifted ashore, with four of the crew remaining. The names of the lost are Captain Thomas Dahl, E. Martin, Hanson, Hans Louis and William Bebee, the latter a fireman from the Leviathan.

The following additional particulars regarding the loss of the steamer Coburn will be of interest:

One of the greatest disasters of the season was the loss of the propeller Coburn, Captain Demont, of E. B. Ward's Lake Superior line, on the 18th in Saginaw Bay, whereby many lives were lost. There were upward of seventy persons on board, about forty passengers and a crew of thirty-five. Among the passengers were eight women and five children, and two families in the steerage. Among those known to have been on board are the following: Mrs. Thomas Holton, of Cincinnati, Miss Mary Mann, of Cincinnati, Mrs. Helen Palmer, of Toledo, James W. Smith, wheelsman, Charles Miguait, of Detroit, porter, Charles Demont, eldest son of the captain, of Detroit, Engineer Robinson, of Marine City, Wm. W. Sims, first mate, of Detroit, all lost. Two small boats drifted ashore, in one of which were the dead bodies of a white lad and a mulatto. The survivors of the Coburn were picked up by the schooner Zach Chandler, and taken to Mackinac, eight in number: W. L House, second mate; H. M. Rhodes, trader of Windsor; Martin Maharring, James Warwick, watchman F. Mumford, Charles Miller, James Ludner, colored; and R. Kelley, a passenger. Ten others were picked up in a small boat and taken to Mackinac. The Coburn was bound from Duluth to Buffalo with wheat and flour. Shortly after passing Presque Isle Harbor the wind commenced blowing from the northeast and there was so much smoke on the lake that the engine was checked down and the steamer held head to the wind. A few hours later the wind veered to the southwest and blew a terrific gale. The Coburn labored heavily but shipped no water of consequence until her rudder was torn off when she drifted into the trough of the sea, making her roll heavily, shifting her cargo. Holes were cut in her bulwarks and the crew set to work throwing her cargo overboard, but the waves washed over her, tore off her smokestacks, and it soon became evident she was settling. Soon the fireman's gangway was stove in, the water rushed into the hold in immense volumes. Captain Demont then ordered the men on deck to get out the boats and sent word to the passengers to make an effort to get on deck. But most of them were sick and but few came out of the cabin. There were on the hurricane deck two life boats and two yawls, but owing to the great sea running no one seemed inclined to take to the boats. Ten men got into one of the yawls and seven into the other, leaving the life boats, bottom side up, untouched. When the Coburn went down Captain Demont stoood just aft of the texas with his hand on the rail. There were quite a number of persons on the hurricane deck when it floated off, but they were seen but a short time. The Coburn was valued at $80,000, and insured for $50,000.

THE WELLAND CANAL.

An impression has got abroad that the work of deepening and enlarging the Welland canal will not be completed in time to throw the canal open for traffic on the opening of navigation, seriously interfering with and delaying the transport of grain and freight from the western states to the seaboard by this route, a matter of considerable moment to Americans and Canadians engaged in transportation and in the grain trade. Grain merchants and others interested in transportation state, that if the prospective delay really arises it will strike a blow from which the grain trade will never recover during the whole season. Mr. Pope, minister of railways and canals, however, says that there is not the slightest reason for alarm. The contractors for the canal improvements are pushing their work along rapidly toward completion, and on this account there will not be one hour's delay the moment navigation opens. It is expected that by the middle of June there will be a depth of fourteen feet from one end of the canal to the other. Parliament will also be asked to vote a sufficient sum to enable the government to go on at once with the enlaregment and deepening of the St. Lawrence canals to a uniform depth with the Welland, and so to admit a vessel passing down from Chicago to the Atlantic without lightering her cargo.

The great extent to which the canals of New York are a factor in the commerce of the metropolis is shown by figures furnished by the New York board of trade and transportation. Out of the total grain receipts at New York of 76,371,237 bushels in 1886 the canals carried 43,619,355, or about 57 per cent. That year was remarkable in the history of the canals. While there were heavy decreases in receipts of grain by rail, river, and other routes, the receipts by canal were largely increased. The receipts by canal alone at New York in 1886 were equal to the total receipts at Philadelphia and Boston. It is further brought out that while the canals are in operation New York "is the center of the grain trade," but when the canals are closed "the competing ports—Baltimore, Boston and Philadelphia—more than hold their own."

The canal forwarders are still considerably stirred up over the bill in the New York legislature which proposes to cut off the middleman

and his commissions. A Tonawanda forwarder is reported as saying, that if the bill becomes a law, his business would be ruined. The bill is at present in Mr. Gallagher's canal committee in the assembly. In reply to a telegram he wires the forwarders that if they choose to appear before the committee he will hear their objections to the bill. A representative will probably be sent to Albany.

The Nork York Nautical Gazette says: The supervising inspector general of steam vessels, in a report made to the secretary of the treasury, claims that the new appointments to this branch of the public crib are greatly superior to those "dropped from the service." Per contra, we heard a high official of the treasury department say—and he is competent to speak on the subject—that the force, as at present constituted, is the poorest ever seen in this district; and we may add that this is the opinion generally of steamboatmen.

TUG WANTED.

We have a customer for a tug with about 10x12 engine or a little over, machinery to be in good order. Price somewhere about $1500.
Address,
MARINE RECORD, Cleveland, Ohio.

FOR SALE---HERRICK HOUSE,

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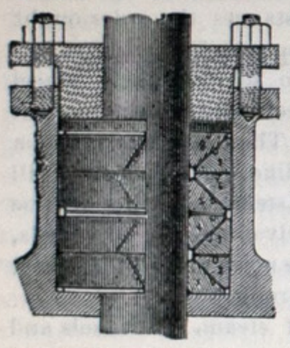

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NOTICE IS HEREBY GIVEN that under a decree of the Circuit Court for the County of Houghton in the State of Michigan, in Chancery, an undivided half part of the steamer Ivanhoe, together with an undivided half part of the masts, bowsprit, boats, anchors, cables, chains, rigging, tackle, apparel, furniture, and all other necessaries thereunto appertaining and belonging will be sold at Public Auction to the highest bidder on Wednesday, the 16th day of March, next, at ten o'clock in the forenoon at the front door of the Court House, in the Village of Houghton, in the County of Houghton, State of Michigan.

Said Steamer and property lie at the port of St. Ignace, being the Village of St. Ignace in the County of Mackinac, in the State of Michigan, and may there be seen.

Dated, Houghton, February 3, 1887.
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Eastward.	Arrive	Depart.
No 4. Fast Limited Express	*2 55 A M	*3 05 A M
No 8, N Y, B & A Express	*8 25 A M	*8 55 A M
No 26, Elyria Accommodation	†7 45 A M	.....
No 24, Buffalo Ac'm via Sandusky	†10 30 A M	†10 45 A M
No 24, Toledo Accom via Norwalk	†10 30 A M	†10 45 A M
No. 10, New York "Flyer"	.....	*12 noon
No 12. N Y & B Fast Express	*2 10 P M	*2 45 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 40 P M	.....
No 26, Conneaut Accommodation	†4 25 P M	.....

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*12 15 A M	*12 25 A M
No 23 Cleveland Express	*2 15 A M	
No 3, Chicago Express via "	§5 20 A M	6 35 A M
No 25, Mich Accom Norwalk	.....	†6 30 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	*10 45 A M	*10 50 A M
No 9, Chi Pac Ex via Norwalk	*6 15 P M	*6 40 P M
No 31, Elyria ac to Elyria only	.....	†4 30 P M
No 27. Conneaut Accommodation	†8 10 A M	.....

Sunday train for Nottingham—Depart 8:15 a. m and 1:45 p. m.; returning, leave Nottingham at 8:50 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, § daily, except Monday.

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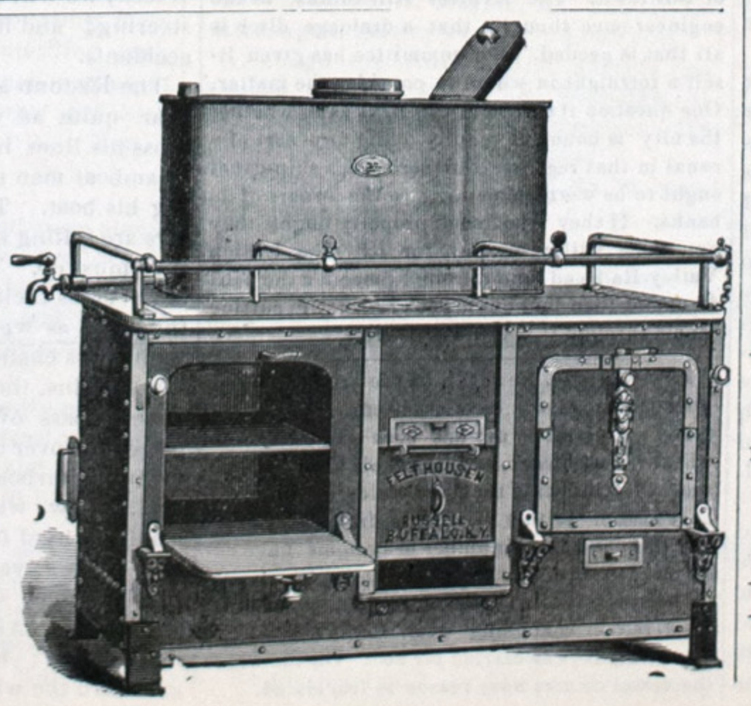

Marine Record.

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A. A. POMEROY, EDITOR AND PROP'R

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Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, O., THURSDAY, MARCH 10.

MARINE INSURANCE.

From the report made to the legislature by the superintendent of the insurance department it is learned that at the close of the year the fire, fire-marine, and marine insurance companies doing business in New York were possessed of $227,848,545 of admitted assets, not including assets held abroad or premium notes of mutual companies, a gain of $15,007,124 as compared with 1885. Excepting scrip and capital, the liabilities of these companies were $85,402,054; the income was $108,039,665, and the expenditures $98,423,011. The whole number of companies reporting was 186, being 10 more than reported in 1885.

In the way of recommendation the superintendent urges the repeal of the law of 1885 which provides for special licensed agents who are at liberty to place insurance in companies not authorized to do business in this state. He finds that the objection to "underground" insurance, which forced the passage of the law, does not furnish the desired protection for the public, as the companies in which the risks are placed are not amenable to state law and the department is without the official date which allows it to pass upon their responsibility. From the conditions which were supposed to necessitate the passage of the statute authorizing the special agents some relief has been supplied during the year by the admission of fourteen fire insurance companies of other commonwealths.

The legislature of 1886 provided for a uniform fire policy, the statute to take effect May 1, 1887. The New York board of fire underwriters was authorized to frame a standard policy. This form has been accepted by the department. Its language can be readily understood. Uniformity in application blanks has also been provided for, thus lessening the chances of dispute in event of loss, as similar classes of property will be similarly described and the adjustment of one loss will be a precedent for all others of a similar character. In many respects this is one of the most important and useful things ever accomplished by the state in the way of insurance legislation.

With reference to the two per cent tax payable by the agents of companies of other states or foreign countries doing business in this state, to the fire departments in towns and villages, the superintendent is of opinion that the operation of the law would be facilitated if the statute were amended so as to require each village having a regularly organized fire department to file a statement relating to the character of the protection furnished with the clerk of the county. To insure compliance with such provisions the filing of the certificates should be made a condition precedent upon the collection of the tax.

Chapter 679 of the laws of 1886, entitled "An Act to provide for the taxation of Fire and Marine Insurance Companies," gave rise to much misunderstanding. The act allowed an annual tax on the corporation franchise or business in this state of fire and marine companies organized under the laws of this state or any foreign country of one half of one per cent on the gross amount of premiums received on business done. The particular provision which made the commotion was the fourth section, as follows:

The lands and real estate of such insurance companies shall continue to be assessed and taxed where situated for state, city, town, county, village, school or other local purposes; but the personal property, franchise, and business of all insurance companies incorporated under the laws of this state, or any other state or country, and doing business in this state, and the shares of stock of said companies shall hereafter be exempt from all assessment or taxation except as in this act prescribed; provided that this section shall not affect the fire department tax of two per cent now required to be paid.

President Coleman of the department of taxes and assessments in New York declared that the act released from taxation $63,000,000 worth of personal property in that city. Without going into the arguments and opinions which superintendent Maxwell cites, it is sufficient to note that the attorney general and the higher courts of the state with the Supreme court of the United States do not so exempt the companies, and those who are so declared now admit that they were mistaken in their construction.

THE river and harbor bill was sent to the president several days ago, but it did not receive his signature before the adjournment of congress and so fails to become law. It is hardly conceivable that the failure was an oversight, and it therefore may be assumed that the president did not approve of the measure. Perhaps he objected to the $225,000 appropriation for Buffalo Harbor—so far as known, the only really fair and unobjectionable estimate in the whole list. For the sake of our neglected port it is certainly to be regretted that the bill came to naught. But Buffalo can stand the loss a good deal better than the country could afford to pay the remainder of the $10,000,000 appropriated for improvements that, so far as is known, neither necessity or convenience demanded. The amount proposed was not large compared with the $24,000,000 job which the more courageous President Arthur vetoed, but the manner in which the bill was worked through congress, the stifling of all discussion and the consequent ignorance of the people as to its provisions entitled it to no other fate than the one it has met.

THE history of the bill's passage is interesting. In the first place, debate was suppressed on the original measure. In the committee of the whole a substitute appropriating $7,500,000 was voted, and this reduction was called a great piece of economy. But when the committee reported to the house, that body rejected the substitute and the original bill was passed without debate. The generous senate no sooner had its hands on the bill than it run the appropriation up to $10,500,000 and in this shape it went back to the house, the rules were suspended, no debate was allowed though discussion was asked for, and the matter was put at once in conference—and when a bill gets to a conference committee that is the last the country ever knows about it unless it becomes a law.—Buffalo Express.

CITY-ENGINEER KRAUSE seems to have changed his views on the thirteenth-ward canal question. So late as February 21st. last he was reported as saying that the ditch should be about three feet deep and fifty feet wide, and as emphatically repudiating the ship-canal idea. The bridges were not to be expensive, and he expected that some at least of the interested real-estate owners would give their land for nothing. Last Thursday night the engineer submitted plans to the council committee on wharves, harbors, and ferries, which apparently call for a two-mile channel, one hundred feet wide, with abutments and swing-brides fit for a ship canal, the whole to cost $185,000. While some property-owners who were present thought that the city could get the right of way without cost, the engineer had estimated that $16,000 would be needed to buy land. We do not know how this change came o're Mr. Krause's dream, but we can assure him that it is now an extravagant one, which will never be tolerated by the people of this town. The Express still thinks, as the engineer once thought, that a drainage ditch is all that is needed. The committee has given itself a fortnight in which to consider the matter. One question it should ask itself is as to whether the city is bound in equity to dig any sort of a canal in that region. Furthermore, a ship-canal ought to be worth something to the owners of its banks. If they want such property ought they not to be willing to pay for it? The Lehigh Valley Railroad paid a round price for the Tifft farm and then laid out a pot of money in cutting canals through it.—Buffalo Express.

THE Kingston News thinks the prospects for a good marine season have not been better for ten years. A vessel owner has been offered 8½c. on wheat from Chicago, and he is half a mind not to accept it, thinking that the price will go up. Last season at this time this freight was 6c. Further, as a large number of bottoms have engaged to go into the western iron trade, vessels for carrying coal will be scarce. Already $1,50 is offered on coal going west. Last season this same freight was carried for 90c. On the whole the vessel owners have reason to feel elated.

CAPTAIN GEO. HAYES, of St. Paul, the supervising inspector, together with Collector Moore, were at work recently examining the different candidates for the position of inspector of hulls. There were seven applicants, viz.: Captain Monroe, Captain J. W. Miller, F. J. Little and Captain John Monahan, of Duluth, E. L. Seavey of Taylors Falls, J. S. Irish of Moorhead, and Captain Maloney of Grand Forks. Judge Nelson, of the United States circuit court, is a member of the examining board, but was unable to be present. The examination is conducted by Inspector Hayes and is very thorough in all its details. It will continue through to-day and will be followed by an other examination for inspector of boilers, for which position there are three applications already presented. Inasmuch as the headquarters have been changed from Marquette to Duluth, it would be eminently proper that Duluth's representatives get the positions.

THE collector of customs at Toledo, recently forwarded to the treasury department a complaint received by him from the keeper of the West Sister light, Lake Erie, and others that certain persons during the past spring and fall have been stretching pound nets for fishing on the reefs and shoals of the waters about West Sister island contrary to the existing state law. The matter was referred to the solicitor of the treasury, who has given an opinion that inasmuch as there is no United States statute forbidding such fishing the collector has no authority to interfere in the matter. He suggests, however, that as the island is a public reservation, the lighthouse keeper might be instructed to forbid any occupation of its shores, or of the waters in its immediate vicinity that may in any way interfere with the objects of the lighthouse establishment.

CORPORATION-COUNSEL WORTHINGTON has been asked to prepare an opinion on the liability of the boat owners in the late accident to the Michigan street swing bridge over Buffalo river. He said that the accident was undoubtedly caused by the mooring of the boats side by side at the docks. Had they all been moored to the docks instead of to each other, the accident would not have occurred. He will probably recommend that in the future all boats shall be moored to the wharves, and that the harbor master see that this ruling is enforced, especially at those times when a break-up of ice may be anticipated.

ONE of the enemies of the canals suggests: "Why not build a railroad, a State railway, from Chicago to New York, if it is necessary for us to keep down the railroad rates?" From the talk of the same side about "favoring the west" it is judged that these intelligent people of the interior think that the Erie canal, as well as the boundaries of the State of New York, extend to Chicago.

A deputation consisting of delegates from the Hamilton, Toronto, Kingston and Montreal boards of trade and the Montreal corn exchange association waited upon the cabinet and asked for the total abolution of canal tolls. This decisive step was undertaken after careful consideration, united action having been determined upon several months ago.

THE STEERING GEAR.

To the Editor of the Marine Record:

GRAND HAVEN, MICH., March 5.

I have read an article in the RECORD of March 3, on uniform steering gear; also the order given by the supervising inspectors of steam vessels that all steam vessels must, in the future, have their steering wheel chains so rove that when an order is given to starboard, the wheel shall turn to starboard, and to port the wheel shall turn to port. It is proper and right that all vessels should steer alike, both sailing and steam. If all vessels, sail and steam, steered alike, we would have uniform steering gear, and what is better we would have uniform wheelsmen. According to this present order how is this matter going to stand? When an order is given on board a steam vessel to starboard, the wheel will turn to starboard, and when an order is given on board a sailing vessel to starboard, the wheel will turn to port. As our wheelsmen are sometimes changing from steamers to sailing vessels, we will have anything but uniform steering; and it may be the cause of many accidents.

The RECORD also stated that it would appear quite as reasonable for a driver to cross his lines in guiding his horse as for a steamboat man to cross his chains in steering his boat. This is just what the inspectors are telling steamboat masters and pilots they must do. That is, they tell them they must cross their horses' lines; it is about the same as when they tell them to steer with cross chains. To steer a steamer with cross chains, the starboard wheel chain will have to pass over on the port side of the wheel, up over the barrel of the wheel, back again to starboard, then down and back to port. Now, what the object of this is it would be hard for any one to guess, or why it is, or was ever done would be impossible to tell, when a straight chain could be rove far better. And certainly it is the more natural way; because, to turn the wheel to starboard the wheel chains must be crossed. A persom might as well say that when the order is given to starboard the helm, tha means the tiller, the ship's head ought to go to starboard, or that the rudder ought to go to starboard. Instead, the ship's head swings to port, and the rudder also turns to port. Then, why not the steering wheel turn to port?

The RECORD further says that there is no practical advantage in the custom of turning the wheel to port when the order is given to starboard. Before answering this question we will state that it is uniform steering gear and uniform wheelsmen that are wanted. Now, to get the latter, all ships, sail and steam, must steer alike; hence, this is one

We have received an elegant calendar from Messrs. Bassett & Presley, iron merchants, Cleveland, Ohio. A copy of this calendar will be sent to any one on the lakes who will send his adddress to this office.

practical advantage. Some persons may say, why not make sail vessels steer, as this order is to steamboats; that is, to cross their chains? The answer is that a sail vessel can't be steered in safety with cross wheel chains. To prove this assertion, suppose a sail vessel is running along with free sheets, blowing hard and a heavy sea running; the wheelsman has to stand on the weather side of the wheel, the ship is lying well over on her side, and has her starboard tacks a'board, and is inclined to gripe to windward or to starboard. The natural way is to meet her by rolling the wheel up or to port. This move turns the wheel in the same direction that you want the vessel's head to move in; beside, the wheelsman has double the power to roll the wheel up, to prevent the vessel from coming to and sweeping her decks, or what might be worse, getting her dismasted. He derives this advantage of power on account of the ship lying over on her side, and if he has an assistant at the lee wheel, he derives the same advantage by pulling the wheel down, from the same cause. Hence, the practical advantage to sailing vessels is in favor of straight chains, as there is no disadvantage to a steam vessel in steering with straight chains, and it being a very great advantage to a sailing vessel; so much so that she would be endangered when under sail in a strong wind, on either beam, by using cross chains. It is also a fact that all vessels, steam and sail, ought to steer alike. Under these circumstances the order ought to be given to steam vessels by the supervising inspectors to so rove their wheel chains that the wheel will turn the same as in sailing vessels. Then all vessels, steam and sail, will steer alike and wheelsmen will understand how to steer, and this will be a great practical advantage to all vessels, because there will be no chance of the wheel being turned the wrong way.

I am an owner of steam, sail vessels and tugs, and would like to see them all steer alike. Have also sailed many years, and I understand what an error in a wrong movement of the wheel may cost,

Very respectfully yours,

T. W. KIRBY.

NOTICE TO MARINERS.

Notice is given that, on or about the opening of navigation 1887, the following named ranges will be established to guide through the dredged cuts in St. Mary's river above St. Mary's Falls, Michigan.

The front light, lower range, will be of the sixth order, fixed red, illuminating 180 degrees of the horizon, shown from a white square frame structure, surmounted by a black lantern, eighteen feet above the level of the river.

The rear light will be of the fifth order, fixed red, illuminating 180 degrees of the horizon, shown from a white pyramidal frame tower surmounted by a black lantern, thirty-three feet above the level of the river.

These lights are 1,450 feet apart, situated on the main land, nearly opposite Pointe aux (Canadian) light station, and form a range to guide through the cut below Round Island.

The front light, upper range, will be of the sixth order, fixed white, illuminating 180 degrees of the horizon, shown from a structure similar to that of the front light of the lower range, twenty-one feet above the level of the river.

The rear light will be of the fifth order, fixed white, illuminating 180 degrees of the horizon, shown from a tower similar to that of the rear light of the lower range, thirty six feet above the level of the river.

These lights are 1,180 feet apart, situated on the main land, about one mile E. S. E. of Round Island, and form a range to guide through the cut between Round Island and Point Iroquois.

When the above range lights are established, the light at Round Island light station will be discontinued.

Notice is given that on or about the opening of navigation in 1887, a lightship will be moored in about sixteen feet of water, off Grosse Pointe, near the entrance to Detroit river, Lake St. Clair, Michigan. The vessel has one mast and is painted red; topmast and cage day mark black. A fixed white light will be shown from the masthead, twenty-five feet above the level of the lake, which should be seen in clear weather, from the deck of a vessel ten feet above the water, 10¾ miles.

The approximate position of the lightship, as taken from the lake survey chart is as follows: Latitude, 42 deg., 22 min., 30 sec. N.; longitude, 82 deg., 51 min., 50 sec. W.

Bearings and distances of prominent objects are as follows: Windmill point lighthouse, W. S. W. ⅜ W. distant 3⅛ miles; Milk River point, N. ⅛ W. distant 5½ miles.

Vessels should pass to the westward of the light ship, close to them steering mid way between Belle Isle and Windmill point lights, can carry sixteen feet of water.

Notice is given that on or about the opening of navigation in 1887, the light at Green island light station, Lake Erie, Ohio, will be changed from a fixed white varied by a red flash every two minutes, to a fixed white, varied by a red flash every minute.

[*Around the Lakes Continued from 1st Page.*[

CHICAGO.

Special to the Marine Record.

At this port the pro-pects of an early opening continue favorable. Although considerable snow fell Saturday vesselmen are not in the least discouraged. The warm spell and high winds that prevailed last week have caused the ice to disappear entirely from our vicinity and reports from the east shore coincide with my statement. This, together with the outlook of a busy season, has created quite a stir among our lumber fleet, which is beginning to be put in commission.

The Eveline Gates, Coral, and City of Grand Rapids are bending sail, their respective masters intending to start for Muskegon the 10th inst.

Miller Bros.' drydock presents a lively appearance. The tug Rollar, of South Chicago, was in dock Monday for a new wheel; tug G. W. Gardner received a new frame forward, stanchions, and covering board; schooner Otter a thorough overhauling, consisting of new stringers, bulwarks, ceiling, stanchions, deck and deck frames; schooner S. B. Pomeroy received a new foremast and center board, schooner Granger a mizzen topmast; schooner Jason Parker had her bottom calked, received new deck and deck frames; schooner James Couch and Cascade new sails; general repairs were made to the Union line propellers Avon and Starucca; the schooner Minerva is being converted into a three-and-after, for which purpose three new spars have been made; the J. B. Lyon is in dock to receive steel arches; the steambarge Annie Laurie will leave dock Thursday.

The machinery of the steambarge George Dunbar has been taken out and will be placed in Mr. Cobb's new barge, the Virginia. The Dunbar will be cut down to a tow barge and act as consort with the E. E Thompson. Captain Wm. Turner, formerly in the Dunbar, will command the E. E. Thompson, Captain Felbes the Annie Laurie, and Captain Minkey, last season master of the schooner Barbarian, the Virginius.

The Chicago Drydock Co. is very busy, working a large force of men. The steamer City of Fremont is in one of their docks receiving new keelsons, ceilings, deck and deck frames. She had her bottom calked and ironed. The steambarge I. M. Torrent is getting new steel arches, keelsons, pilot house forward and a thorough recalking; barge Guiding Star had her deck and topsides calked; barge H. R. Newcombe received new keelsons and some calking; tug F. Anderson had her bottom calked and ironed; tug Belle Chase a thorough overhauling; propeller Vernon a new wheel; the steambarge L. Worthington, schooners Wm. Jones, J. B. Wilbor and L. A. Law received some general repairs.

The little schooner Curiosity, in trouble last fall, has sunk in one of the Illinois slips. Cause unknown.

Charles Green, for several seasons mate with Captain D. P. Crane, of the James Mowatt, will command the schooner Thomas Howland. Captain Crane thinks much of the Mowatt as a racer. He has supplied her with a heavier wheel and large raffee, and with the boatswain he intends to hire, expects to make it lively for the boys.

Captain Raymond Cazallei has been made master of the schooner Skylark.

The C. V. O. T. Co. has adopted a new coat of paint for their boats. Instead of that unsightly green color they will receive a red bottom, white topsides and drab house; quite a pleasing combination.

A new boiler, built by John Mohr & Son, boiler makers, was placed on the steambarge D. W. Rust Saturday.

The schooner L. M. Mason has received extensive repairs, consisting of two new shelf pieces, new deck aft, a raised cabin, rail and stanchions.

Sam Marshall has bought the schooner Arctic, now at Milwaukee, for $3,500.

Captain Neil Blainy, last season on the Oak Leaf, has left for Escanaba to take command of the John Kelderhouse, recently purchased by Mueller & Christie. She will engage in the cedar trade between Green Bay ports and Chicago.

The following transfers of vessel property have been registered at the custom house: Schooner H. A. Richmond, whole, S. C. Hall Lumber Co. to F. D. Baker, Peter Peterson and John Peil; consideration $3,300. Schooner S. M. Stephenson, whole, W. W. Tyler to A. A. Bigelow, et al.; consideration $2,200. SEMPER.

MARINE CITY.

Special to Marine Record.

The new steamship building by the well-known ship-carpenter, Mr. Simon Langell, at St. Clair, eight miles above this place, is a great credit to our marine corps. Her dimensions, as nearly as can be ascertained, are 288 feet over all, 40 feet beam, 11 feet 9 inches lower hold and 8 feet between decks. Her frames are 17 inches at the bottom, 16½ at the bilge, and 8 inches at the top, all of 6 inch flitch. She has sixteen fore and aft keelsons, eight on each side, with 12x18-inch double frames on her bottom, and a peculiar double bottom, the top one the same crown as her deck, with two top keelsons, 12x12, leaving space of about 5 feet. Her deck stanchions are 8x10, and she is planked with 6-inch up to loaded line and 5 inch above. Her flooring is 4-inch flitch, ceiling 5 inch to main deck. She will have two steel arches on each side, 8 inches wide by 1 inch thick, the lower arch running below and the top arch above her shaft. She is diagonally strapped, both ways, down to garboard strake. Her engines were built by Samuel F. Hodge, of Detroit; are fore-and-aft compound, 30x50x42 inch; will have two Scotch boilers, about 10x12 feet, and will be allowed 120 pounds of steam. She will have four spars. The above described steamer is said to be the stanchest boat ever built on fresh water, and we guess she will be named the Mark Hopkins, in honor of the St. Clair millionaire. Will give notice of the launch in due time.

The J. C. Pringle, formerly the W. H. Gratwick, will tow the Buckeye State, Gephart, Irish and one other the coming season. Success, J. C. The controlling owner will keep them busy in the lumber trade.

The Ed Smith, Captain Al Mitchell, will tow the Marvin, Fryer, Hannaford, and Reindeer, in the lumber trade.

The ice at this port is about ready to go to-day, the center being gone, making it necessary for those crossing to go in boats.

The prospects are that the river opening will be as early as last season, which was March 13. Should we have three more days like to-day, the smartest boat on fresh water, the steamer Mary, will commence her daily trips between Marine City and Port Huron, Captain Sam Burnham master and part owner. The Mary has been repainted and presents a fine appearance. The engineers are at work, and say they will be ready for the first opening.

Captain C. H. Westcott, of the steambarge Lowell, arrived in town to-day to commence fitting out his steamer for the spring opening; don't care what color, so long as she's red. The captain has had the Lowell's boilers made comparatively new.

Captain John Mitchell, of the Gratwick fleet, is in town, and says the new Gratwick work is booming. The captain has been at Bay City, superintending work on the new steamer Gratwick, but is visiting in Marine City for a few days.

Mr. Sam Whitely & Son, of Sombra, Ont., opposite this port, have negotiated for a steam ferry, to run between this place and Sombra. Success, Sam; it was needed badly.

The D. F. Rose and tow will be painted black this season. Captain Cass Saph says he is tired looking at green paint.

Captain Leitch's boats have had a general overhauling, and are ready for the paint, which will be the same as last season, green bottoms and white bulwarks.

The Swing Bros. are negotiating for a steam hoisting lighter for unloading coal, stone, etc., which is very much needed at this port. Good scheme, boys; get it to running. BOB.

TONAWANDA.

Special to the Marine Record.

Captain Adam Hartman will have a new duplex steam pump put on his tug W. H. Gratwick. Her boiler will receive a general overhauling and some tubes, and his tug Bellinger will receive new stanchions and rail.

Schwinger & Co., vessel supply men and ship chandlers, are making great preparations for the coming season and expect to do an extra good business, in accordance with the spirit of the times.

The tug Balize, owned by W. T. Charlton, is having her engine and machinery overhauled by Trout, at Buffalo. She will also receive a new steel boiler, built by Riter. WILLIAMS.

EAST SAGINAW.

Special to the Marine Record.

The following masters are appointed to go in Mason & Corning's fleet at East Saginaw: Propeller Charles H. Green, Captain Mike Madden; schooner Rosa Sonsmith, Captain Charles Sonsmith; schooner Mattie Bell, Captain George Johnston; propeller Porter Chamberlain, Captain H. W. Robinson; schooner Thomas H. Cahoon, Captain Peter Edgar; schooner A. T. Bliss, Captain John Hocast; schooner Ida Corning, Captain Moses Rogers; schooner J. Wesley, Captain Wm. Brown; schooner Mary Birckhead, Captain John Stewart. The Green and tow are chartered to carry ore from Marquette to Ohio ports at $1.65; the Chamberlain and tow, lumber, from Marquette and Bay Mills to Tonawanda at 25c above Bay City rates.

MT. CLEMENS.

pecial to the Marine Record.

Captain Webb, Wm. J. Daley, and Robert Shook have purchased the steambarge Missouri from Wallace. She is intended for the lumber trade, and will pull three barges. Captain Webb, late master of the Virginius, will pull the bells.

Some repairs are being done on the Defrent boats here; also, some painting.

The work on the new boat, building by the Tonawanda barge line, is progressing very rapidly, being planked inside, about half on the outside, and all deck beams on. She will make a fine barge when finished. L.

KINGSTON.

The report of the Richelieu and Ontario Navigation Company showed the receipts of the year to have been $531,265.03, and expenditures, including dividend paid in October last and interest, $472,650.67. A dividend of $40,500 fell due on February 19, 1887, leaving a credit balance of $18,114.36. During the past year the company purchased four steamboats and built a fifth one, at a total cost of $303,000. The net receipts of the new lines put into operation amounted to $46,101.09, from which must be deducted $5,472.38, amount of the loss incurred in operating the Prince Arthur, Montarville, and South Eastern. The report states that the company is on the high road to prosperity, as their lines of steamers are now complete, and no further purchases will be needed. They now have a continuous line of traffic from the Saguenay to Toronto, and look forward to next season with great confidence.

DULUTH.

It is said that a gentleman by the name of Williams will open a sail loft here at once. Although almost incredulous, it is nevertheless a fact, that at this important lake port no such an enterprise exists, and vessel men will doubtless hail with delight its establishment. Mr. Williams is now in the city, and before he returns to his home will make all arrangements to begin business before the opening of navigation.

M. E. B. A. NOTES.

Martin Stroder, the president of No. 4, has gone to Milwaukee to fit out his steamer.

Captain A. R. Young, of No. 25, has just returned home after an extended trip through Michigan.

Mr. James H. Wilson, president of No. 6, recently had a younger brother killed by being crushed in a planing mill. Mr. Wilson took the remains to Cincinnati for interment.

Mr. L. Walley, corresponding secretary of No. 51, has just returned home from his trip to New York.

Mr. F. W. Whitehouse, from No. 4, whose injury was mentioned in this paper not long since, has fully recovered.

James McGuire, president of No. 28, Wabasha, will go as chief engineer on the steamer Kit Carson, a boat that he has been on for several years.

President H. A. Horton, of No. 19, Le Claire, again goes chief on the Louisville.

Although the steamer Jim Sheriffs has changed owners, Mr. H. F. Wadleigh, of No. 9, will run in her as chief engineer. He has run in her for several seasons.

Several of the members of No. 6 have gone to the upper Missouri to fit out boats for the mountain trade.

Mr. D. B. Ramsey, of No. 4, but formerly of No. 2, went home from his plant the other evening, only to find the entire place filled with ladies and gentlemen, and the tables ladened with good things to eat. Upon an inquiry from Mr. Ramsey as to the meaning of the intrusion, he was informed that it was his birthday, and they, the assembled friends, wanted revenge. Dancing and merriment was the order of the occasion.

CLEVELAND, O., February 25.

To the Editor of the Marine Record.

I saw an article in your paper stating that the Brotherhood of Lake Marine Engineers were becoming a prosperous organization, and that none but licensed engineers are allowed to become members. I wish to correct you. None but engineers, in actual practice as engineers, are allowed to become members of the Brotherhood. We are organized in Chicago, Buffalo and Detroit, and Cleveland is our headquarters. Lodge No. 1 has a membership of eighty-seven. Our object is to better our condition morally and financially, and in so doing we are enabled to furnish our employers with better engineers than heretofore. Our organization is gotten up as nearly as can be like the Brotherhood of Locomotive Engineers. Our constitution were carefully looked over and approved by First Chief Engineer J. H. Inghram, of that order.

ENGINEER OF BROTHERHOOD.

THE ENGINE ROOM.

To the Editor of the Marine Record:

DETROIT, March 7.

As you have been so successful in bringing to notice the different styles of steering wheels and the accidents that have happened through men not understanding them as a marine engineer should, we congratulate you.

Now, in our behalf, will you do us a favor, through the columns of the MARINE RECORD, in regard to more help in the engine room. Our lake marine service demands large steam vessels. The large engines that are put in them, such as the fore and aft compound and triple expansion engines, has entailed much more labor, while we are not allowed any more help in the engine room than we had twenty years ago with the old style, single high-pressure engine, except in a few cases where one helper or greaser is allowed. Nearly all of this class of engines have two boilers to supply them with steam, and every engineer knows that when a boat arrives in port, to discharge or take on a cargo, there is not much time to take proper care of the boilers and engines. Where we are allowed but two engineers and two firemen there is too much work, that is, if everything is properly taken care of; but if they are not well cared for who pays for it in the end? The owners.

There is one more good reason why we should have more help. It is this. Suppose the engineer on duty is below, oiling and looking to see if everything is safe and running right, and it is a dark, stormy night, a heavy sea running, and all at once, while he is below, there are bells, to stop and back the engine, at full speed, to avoid a collision. It must be some time before he can get up into the engine room to answer those bells, even if he properly understood them where he was below, oiling. It is for the owner's interest that there should be one helper, called a greaser, on each watch. By employing more help to properly care for the machinery of his vessel, the owner would more than realize the small amount it would cost to keep them.

MARINE ENGINEER.

CARD OF THANKS.

DETROIT, MICH., March 4th.

The members of the Sailors Friend Society, wish to tender their thanks for the punctual appearance of the MARINE RECORD at the Detroit Marine Hospital.

The sailors there, appreciate it and after remaining in their reading room a week; it is mailed to some one of those who having recovered have gone on the lakes again, thus doing double duty. Yours respectfully,
E. R. GREENE, 699 Fort Street E. Detroit.

Mr. J. Hughes, 643 Detroit street, Cleveland, who has made a specialty of supplying steamboats and vessels with fresh and salt meats, during the season of navigation, for many years, will start a branch shop in Fairport, Ohio, on the docks, this season and invites all vessel masters trading to that port to call on him. The best quality of meats furnished promptly and at the lowest prices.

FOR SALE.

Small marine engine 4x4 inch and all fittings, with patent metallic packing, built by engineer H. W. Prince; has run one season in 26 feet yacht and made between 7 to 8 miles an hour, and a 4x6 engine. Also an upright boiler 28x48 submerged flues. Selling on account of putting a larger engine and boiler in the yacht. Address,
C. G. ORTH, 560 Pearl St.
Cleveland Ohio.

GEO. RANDERSON,
DEALER IN ALL KINDS OF
Fresh, Salt and Smoked Meat
Sugar Cured Hams, Shoulders and Bacon
A SPECIALTY.
Vessel Orders Promptly Filled.
No. 236 Detroit Street, Cleveland, Ohio.
TELEPHONE 1732.

THE SS. POCAHONTAS.

An ocean carrier that it will not be possible to sink or burn, that can cross the Atlantic in less than six days, and that with absolute safety and unexampled speed, will afford hitherto unheard of conditions of luxury, such will be the Pocahontas, soon to be set afloat by the Arrow Steamship Company.

Her patent, the largest and most comprehensive ever granted in the United States, was issued on January 11, 1887, and upon the same day was secured in every country having a seacoast and the possible ability to construct a steamship; her iron has been contracted for in Tennessee; a splendid yard in which to build her has been obtained in Alexandria, Va.; within ten days the laying of her keel will be commenced; and before snow flies next winter she will be floating the American flag proudly over her, the swiftest, strongest, safest and most beautiful thing that rides the waves. And she will be all American, the product of the genius of an American engineer and inventor, Mr. Robert M. Fryer, who has devoted to her development twenty-one years of unremitting experiment and toil. To him alone belongs all the credit for the bold originality of her conception and the masterly ability with which her infinite details have been severally perfected and wrought into a symmetrical whole.

"We will once place the stars and stripes in their old position, as head of the carrying trade of the world." Thus spoke Mr. Jas. H. Connelly, one of the executive committee of the Arrow Steamship Co., to a Courier representative, as he commenced to unfold his tale of the formation of the Arrow Steamship Co., and the plans whereby the long lost prestige of the American flag is to be regained with interest.

One great obstacle to American steamship building heretofore has been in the cost of the iron, which is greater than the amount that has to be paid by the shipbuilders of the Mersey, the Tyne or the Clyde. The Arrow Steamship Co. have overcome this difficulty. They are contracting for sufficient supplies of Tennessee and Alabama iron, which can be obtained for much less than Pittsburgh or other northern iron, and considerably less than the iron employed in English iron ship building.

The New York Marine Journal says: The interest in the new undertaking by the Arrow Steamship Co. is vastly increasing throughout the country, and since work has begun on the Pocahontas at Alexandria, Va., the press speaks volumes of praise in its behalf. The American public is awakening to a sense of duty; the present movement has brought the whole United States to a realization of the deplorable condition of its merchant marine, and a start has been made in the right direction to build such steamers as will regain our former supremacy on the ocean.

Figure 1 is a perspective of the Pocahontas listed to a port and a portion of her deck removed to show the sectional plates or thwart-ship bulkheads which are the important features of the vessel, and which any one familiar with steamships will observe at a glance the great superiority over all other ocean-going steamers.

Figure 2 represents a central vertical longitudinal section. Fig. 3 represents a horizontal section through the main saloon immediately below the upper deck. Fig. 4 represents a similar section through the lower saloon, and Fig. 5 a similar section immediately below the lower deck. The opening *b9*, in Fig. 3, represents the main saloon which extends through the entire length of the vessel. The opening *b10* in Fig. 4, represents the lower saloon, which is divided through the engine section of the vessel by the central portion of the plates B which constitute the frame of the engine, but which forward and aft of the engine section occupies a central position directly under the main saloon, the plates, except those which form the frame of the engine, being cut out centrally.

In Fig 5 is shown twenty boilers arranged in pairs forward and back of the engine-room. The boilers may thus be said to be arranged in four groups, two forward of the engine room and two back of the same. The boilers and furnaces adjacent to the engine room are sufficiently removed from the latter to form fire rooms *d2* and the pairs of boilers and furnaces are sufficiently separated to form similar rooms between the same. The opening *b11* represents coal bunkers, which are located between the boiler tunnels forward and aft of the engine room, as shown in Figs. 2 and 5. The floors of these bunkers are somewhat higher than the floors of the boiler tunnels, and their inner walls have openings *b12* through which the coal tender passes the coal into the fire room. The openings are provided with doors, which may be tightly closed.

With the exception of the keel and the bearings and fitings of the shaft and engine, the entire structure which forms the subject of this invention is formed of rolled plate iron or steel, which is the simplest product of the rolling mill, and which is produced by the ordinary rolls with which every mill is provided, thus avoiding the use of special machinery for the production of any part of the hull or frame of the vessel and even the keel may be made entirely of metal plates, as will be hereinafter explained.

Instead of the ordinary ribs of iron vessels, as heretofore constructed, I employ iron plates, which are erected on and secured to the keel, and which correspond in size and shape with the cross section of the vessel at the points at which they are erected. These plates are erected at intervals which correspond with the length of the staterooms or other compartments into which the vessel is to be divided, and form the partitions or walls between such rooms or compartments, thus effectually separating the latter. The plates are cut out to form the various passages and longitudinal compartments which extend entirely or partially through the vessel. The walls of these are secured to the edges of the openings, thus connecting all the plates through which the passages or compartments extend.

The decks are composed of iron plates of sufficient thickness to give the required strength. The upper deck rests upon the tops of the iron plates, or section plates, and are secured to all of them. The other decks are composed of plates of sufficient length to extend entirely across the vessel, and of a width to fill the spaces between the section plates. They rest upon and are secured to angle irons which are riveted to the plates. Inasmuch as the plates which take the place of the ordinary ribs extend entirely across the vessel, it follows that any shock, strain, or pressure to which the vessel may be subjected will be resisted by the entire plate, and that one side cannot be stove in without displacing the whole plate and breaking the opposite side of the vessel out; nor can the vessel be collapsed except by the application of pressure sufficient to double up the plates between the points between which it is applied; but the plates being all connected by the decks and the walls of all the various passages and compartments, this doubling up or bending is resisted by all the plates throughout the vessel, so that any crushing force applied at any point is taken up and resisted by the whole structure.

The length of the Pocahontas over all is 540 feet; between perpendiculars 515 feet; beam 40 feet; extreme depth 46 feet, draught at bow 20 feet and at stern 25 feet 3 inches; tonnage 5,200 tons; capacity of engines 12,000 nominal horse power, with capabilitity for development to 27,000. From her bow, which is almost as sharp as a knite blade, she slopes back 207 feet to her amidship section, and from that tapers again a like distance to her stern. Her model is almost that of Herreshoff's famous launch, the Stiletto, that has a record of 23.7 miles per hour—a speed never until now attained by any other vessel. But while the greatest amidship sectional area of the Pocahontas is only 18.2 times as great as that of the Stiletto, her engine power is 21.3 times as great, without forcing it beyond the requirements of ordinary service.

The capacity of her engines is something enormous and while they are capable of attaining 12,000 horse power actual development upon one-quarter cut off, at a pressure of 125 pounds can be forced to 27,000; a power when the construction of the vessel is taken into consideration capable of driving her along at an unheard of rate of speed.

The fundamental idea so to speak is the vessel's keel, a ponderous structure in itself and practically a solid mass of iron, 510 feet in length, 5 feet 6 inches high at the bow and 10 feet 6 inches at the stern, by 12 inches in thickness throughout its entire length and weighing 750 tons, which is designed principally to give stability to the ship. Upon this keel are erected the so called transverse sections which are rolled iron plates (pierced at the proper places for the longitudinal galleries) placed at a distance of 7 feet 6 inches apart which, when they are in turn connected by the decks and vertical longitudinal walls, form a construction that is intertied at every possible point and is stronger than any truss bridge ever built. The immense advantage of this plan over the old one of attaching ribs to the keel and then putting on the outer skin thus forming a big tank divided up perhaps into a few alleged watertight compartments, becoming obvious at a glance. This new vessel is a series of compartments, aggregating over 1,000 in number, 500 of which are below the water line, and each one of which in case of an accident can be kept free from water by pneumatic pressure, so that in fact if the vessel's skin were pierced in a dozen different places or if she were cut into several pieces each piece would float of itself. That such a vessel cannot be sunk goes without saying.

The company will save 40 per cent upon the cost of its vessels by constructing them itself; and when it is said that it will build the Pocahontas, a vessel which in the perfection and magnificence of its appointments will far surpass the finest vessels now afloat, for $600,000, it will be at once apparent that it is not only able to compete, but absolutely to build vessels of the design of the Pocahontas, much cheaper than any other company in the world.

One other great advantage is that this vessel is absolutely fire proof, as not a particle of wood enters into her construction. She is of iron and steel throughout even to her decks, which are all of metal, and in the saloon are covered with marble bedded in asbetus cement.

There is at least a certainty that the English, French and German steamship lines will cease to control the passenger traffic of the Atlantic, to the, at present, complete exclusion of the American flag. The Arrow steamship company, which was incorporated nearly three years ago, has been quietly perfecting its plans ever since.

The inventor and patentee of the system is Mr. Robert M. Fryer, a distinguished mechanical engineer of New York city, and he is the engineer-in-chief of the Arrow steamship company. The list of officers, etc., is as follows:

T. O'Meara, President.
W. H. Clarkson, Secretary.
David A. Curtis, Corresponding Secretary.
M. M. Searing, Treasurer.
Robert M. Fryer, Engineer-in-Chief.
James H. Connelly, T. S. Weaver, with the President, Executive Committee.

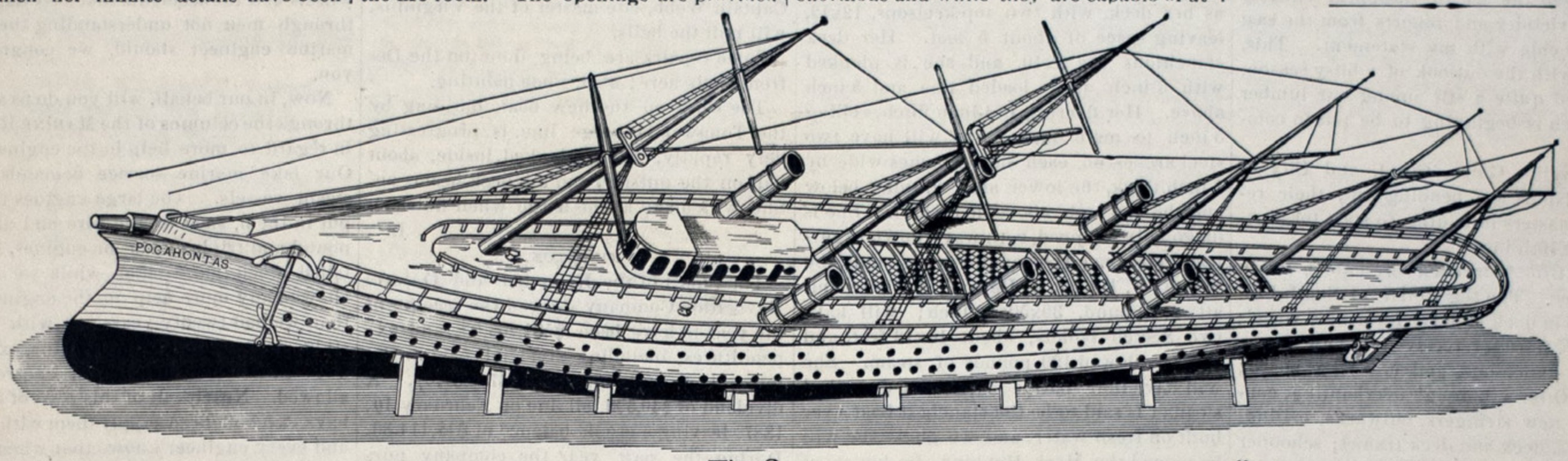


Fig. 2

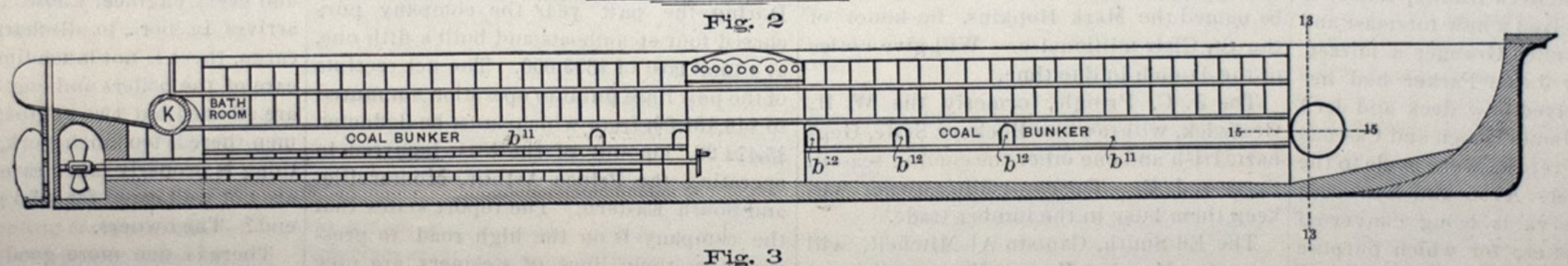


Fig. 3

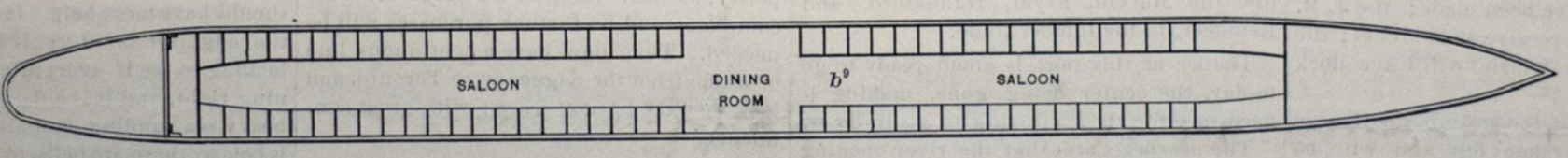


Fig. 5

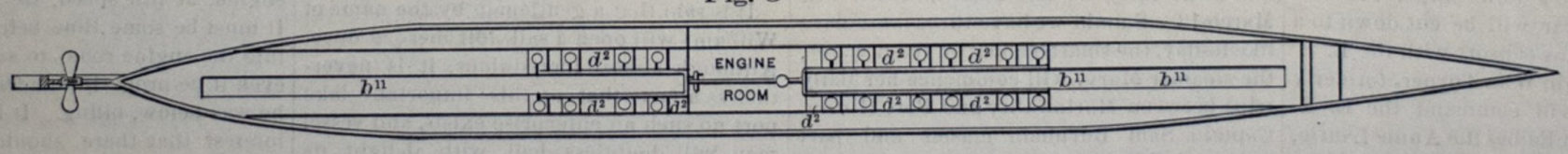
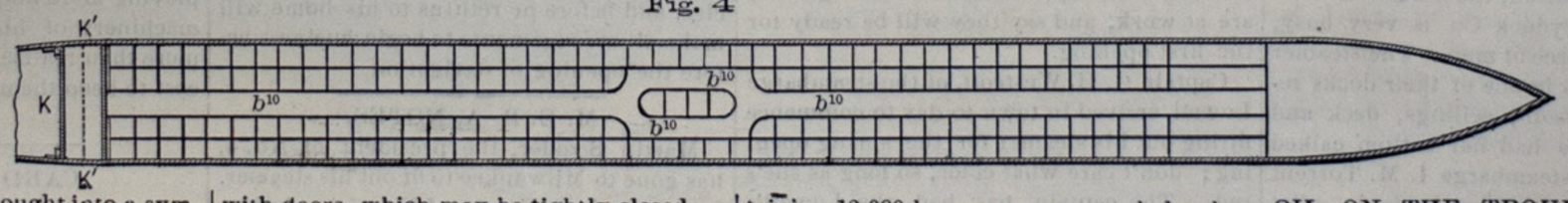


Fig. 4



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The New York Sun says: "The demand for marine oil has recently arisen through the publication, by the hydrographic office, of the value of oil in a breaking sea. It has become the fashion to use oil. It is a singular characteristic, but many old ship captains boast that they are not book sailors and take a pride in refusing to do what the books recommend, and in refusing to take up with what they call a new-fangled notion. They have heard about the value of oil ever since whales were first captured off Nantucket, but it was not the fashion to use oil, so they let the boat sink."

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The Cleveland Leader says: "Every little while a vessel comes to port after a stormy passage on the Atlantic and reports the successful use of oil to lessen the force of waves at sea. The culminative testimony upon this point is so strong that the most skeptical must be convinced of the fact that there is some virtue in greasing storms."

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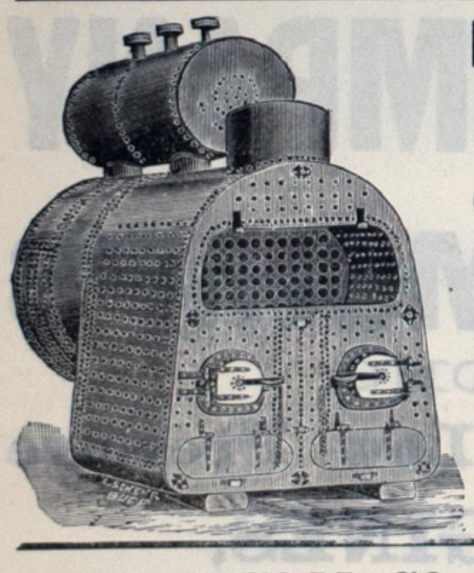

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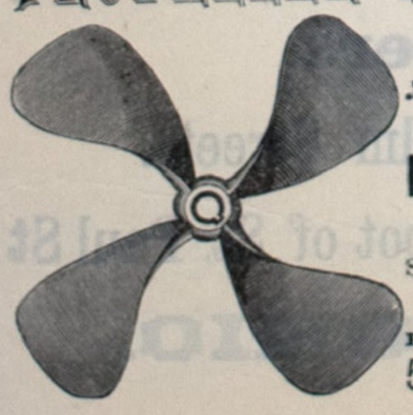

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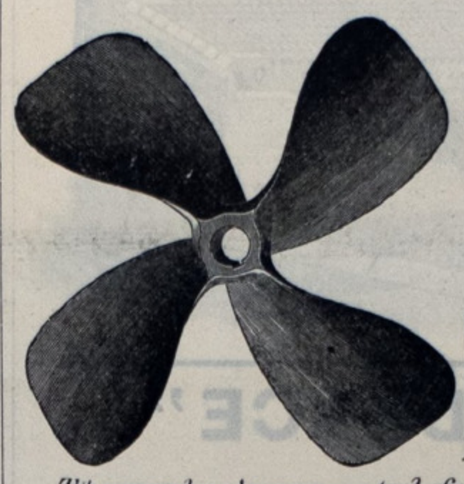

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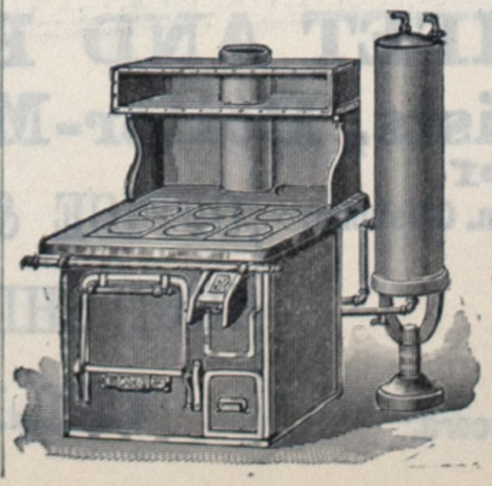

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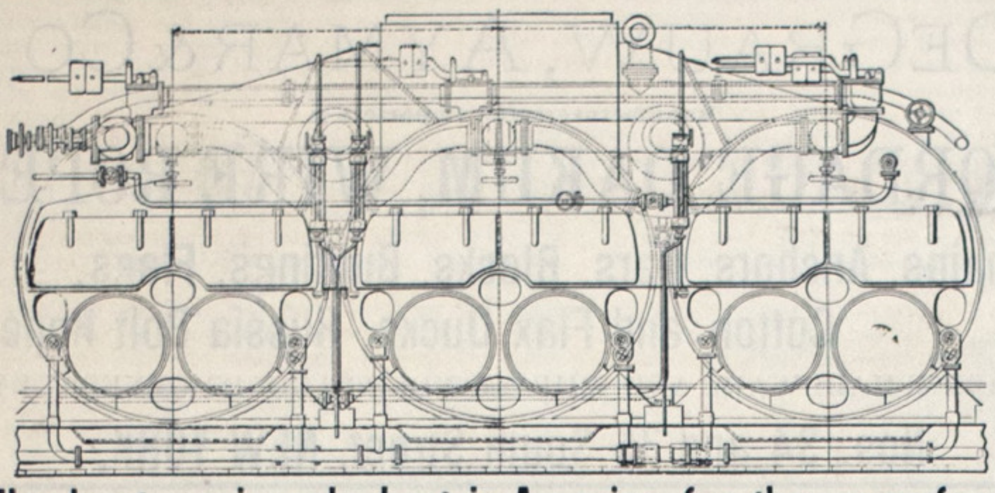

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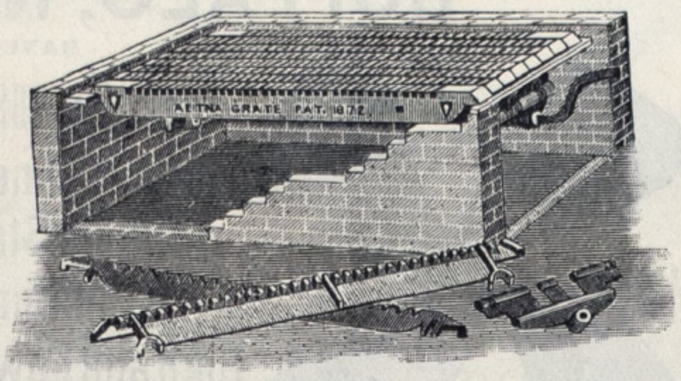

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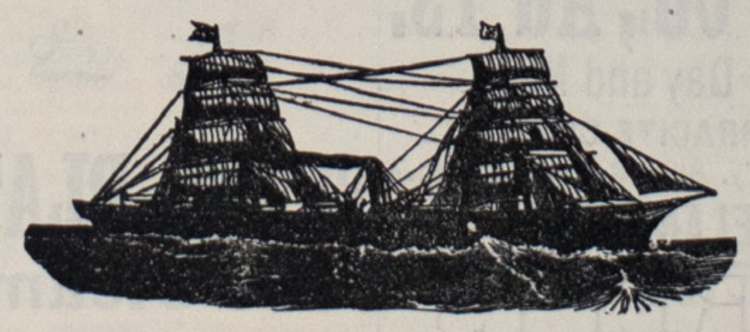

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